

Green

Dart Aerospace Ltd.

Date: Tuesday, 24/02/2009 10:14:14 AM  
 User: Melanie Fauteux

## Process Sheet

TULMAR

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : COVER PLATE  
 Job Number : 46056  
 Estimate Number : 13394  
 P.O. Number : Part Number : PB6743001181  
 This Issue : 24/02/2009 S.O. No. : Drawing Number : B6743001 PAGE29  
 Prsht Rev. : NC Project Number : N/A  
 First Issue : // Type : SMALL /MED FAB Drawing Revision : ~~B1~~ C PRELIM 09.02.24  
 Previous Run : 44994 Material :  
 Written By : Due Date : 03/03/2009 Qty: 12 Um: Each  
 Checked & Approved By : MF 09-02-24  
 Comment : Est Rev:A 08-06-20 new issue DD verified by:ec

## Additional Product

PRELIMINARY ISSUE

Job Number:



09.02.24

Seq. #: Machine Or Operation: Description :

1.0 M2024T3S032 2024-T3 .032 sheet



Comment: Qty.: 1.1101 sf(s)/Unit Total : 13.3207 sf(s)  
 2024-T3 Sheet 0.032"  
 batch: ~~110778~~

ml 09 02 25 (12)

2.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET  
 1-Cut as per Dwg B67-43001  
 Dwg Rev: Prelim  
 Prog Rev: Prelim  
 \*\*\*\*grain direction along 7.25" \*\*\*\*  
 2-Deburr if necessary



ml 09 02 25 (12)

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

ml 09 02 25

(12)

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

09.02.27 (12) ENGINEERING APPROVAL

09.02.27

5.0 BRAKE NC NC BRAKE



Comment: NC BRAKE  
 Bend as per Dwg B67-43001

09/03/02 (12)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: COVER PLATE

Job Number: 46056

Part Number: PB6743001181

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



**ENGINEERING  
APPROVAL**



Comment: INSPECT WORK TO CURRENT STEP

09.03.02

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

APPRC  
Cmp / BL

09/03/02

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Green Sandtex (Ref: 4.3.5.8) as per QSI 005 4.3

m18144

START TIME:

1:15

OVEN TEMPERATURE:

320°

FINISH TIME:

1:45

FL 09/03/03

(12)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

MF 09-03-03 12

10.0

PACKAGING 1

PACKAGING RESOURCE #1



710.8192.

C209/03/03

(12)



Comment: PACKAGING RESOURCE #1

Identify with Dart P/N and B/N using a permanent fine point marker on the bottom side of the part

11.0

QC5

INSPECT WORK TO CURRENT STEP



MP 09/03/04



Comment: INSPECT WORK TO CURRENT STEP

12.0

PG

PURCHASING



Comment: PURCHASING

SEND TO TALMAR FOR FOAM AND FABRIC

710.8196

C209/03/03

(12)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

C209/03/06 (12)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 24/02/2009 10:14:15 AM  
User: Melanie Fauteux

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: COVER PLATE

Job Number: 46056

Part Number: PB6743001181

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

*MF 09/03/24*

15.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 57437

*09/03/24 8 (+4)*

16.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*10/09/16*

Job Completion



*MF 09-03-25*

POSITIVE RECALL

EFFECTIVE *09.03.24*

RELEASED *[Signature]*

AUTH *[Signature]*  
DATE *09.03.24*

*09.03.30*

*Per ECN #10-564  
10.06.14.*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

100224

<input checked="" type="checkbox"/>	First Article	<input type="checkbox"/>	Prototype
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100224

03:00

d by  
A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

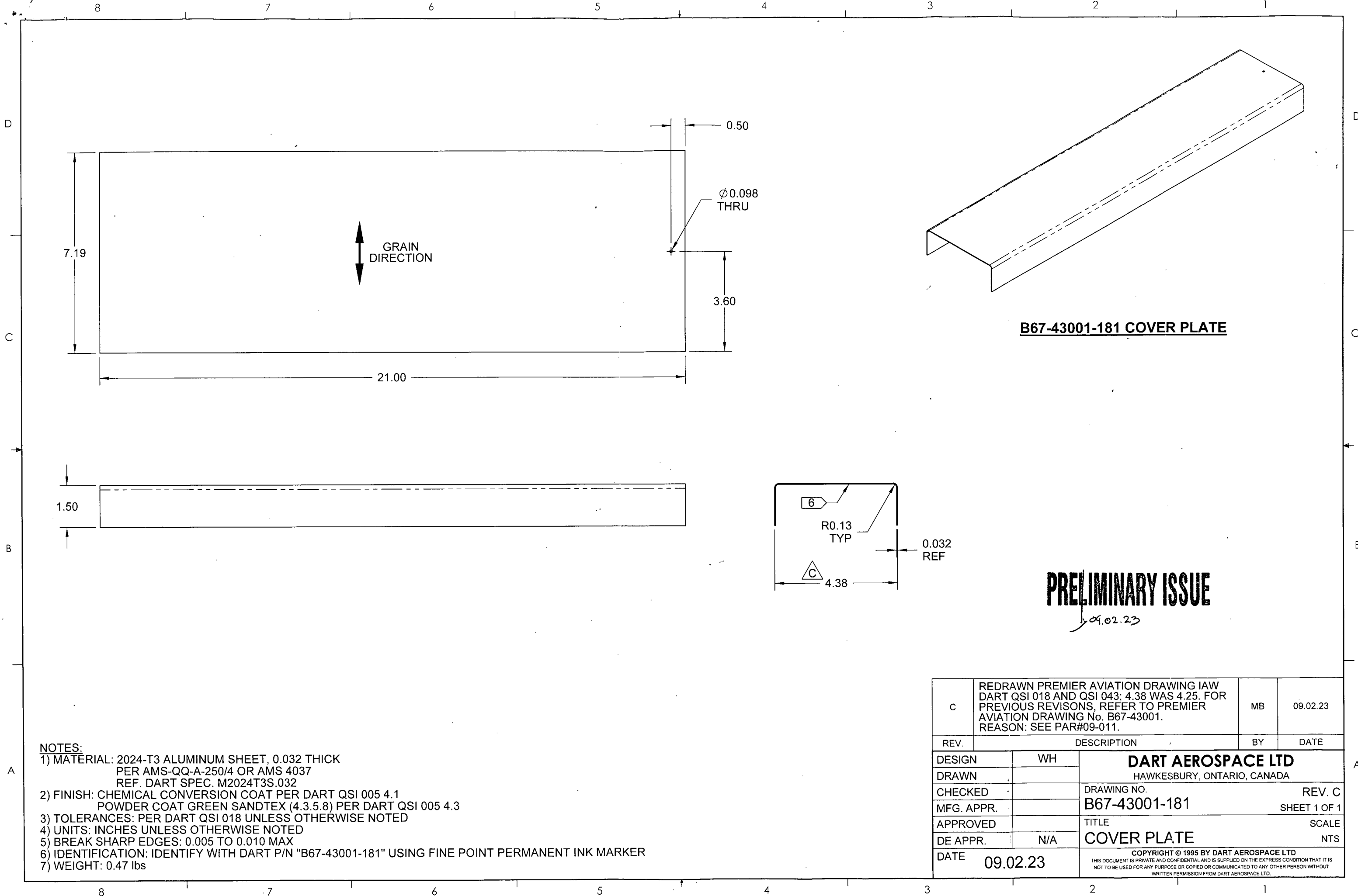
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.032 THICK  
PER AMS-QQ-A-250/4 OR AMS 4037  
REF. DART SPEC. M2024T3S.032
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "B67-43001-181" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.47 lbs

FAXED  
11-5-08**CLIFTON**  
**Adhesive, Inc**  
Industrial Adhesives & Coatings

Date: 11/4/08

Shipper #: 11489

**Certificate of Compliance**

This letter certifies that 11 x 5 gallon pails of LA4009 Adhesive,  
lot number (s) 08-294 was shipped to you on 11/4/08.

Clifton Adhesive, Inc manufactured this material according to internal specifications  
which include quality control and assurance procedures. The material was  
manufactured on 10/20/08 against your Purchase Order # 14986-00.

Shelf Life: 1 year from date of manufacture  
Expiration Date: 10/20/09

This letter certifies that 5 x quart cans of CATUR Accelerator,  
Lot number 08-305 was shipped to you on 11/4/08.

Clifton Adhesive, Inc manufactured this material according to internal specifications  
which include quality control and assurance procedures. The material was  
manufactured on 10/31/08 against your Purchase Order # 14986-00.

Shelf Life: 1 year from date of manufacture  
Expiration Date: 10/31/09

Sincerely,

*Dan Constantino*

Daniel Constantino  
Quality Assurance Mgr/ISO Coordinator

Burgess Place • Wayne, NJ 07470 USA  
Phone: 973-694-0845 • Fax: 973-694-5678  
[www.cliftonadhesive.com](http://www.cliftonadhesive.com)

7122/24. (62)



# J. ENNIS FABRICS LTD.

*Wholesale Distributor of Textiles and Supplies*

October 9, 2008

**Fax To: Tulmar Safety Systems**

**Fax: 613-632-2030**

**Attention: Sandra Nadeau**

**Fax From: Sharon James**

**EDMONTON**

**HEAD OFFICE**

12122 - 68 Street  
Edmonton, AB T5B 1R1  
Canada  
Phone: (780) 474-5721

**Certificate of Conformance**

**Re: PO 14881-00 for Oxford 7 Black**

The goods shipped on P/O 14881-00 are as per sampled goods. Specification as follows:  
As per mill documentation:

**Oxford** is in compliance with the following standards:

**Width:** Product is 58 Inches Wide.

**Roll Size:** Average Roll Length is 75 Yards.

**Weight:** Product Weight is 6.79 Ounces per Sq. Yd. /Product Weight is 10.94 oz per Lin. Yd

**Content:** 100% Nylon

**Coating:** Product has a Polyurethane Coating (approximately 0.65 oz/ Sq. Yd. (18.5g/sq.yd.))

**Denier:** Yarn is 420 Denier.

**Thread Count:** Construction is 62 x 38 Threads per Square Inch

**Protective Finish:** Product is Water Repellent.

**Hydro Resist:** AATCC 127 (Suter): Average 800 mm

**Manufacture Date:** 08/06/08

**Lot Number:** 35896

Sincerely,  
**J. Ennis Fabrics Ltd.**

*S James*

Sharon James  
Product Development

**TORONTO**

6300 Kenway Drive  
Mississauga, ON L5T 2N8  
Canada

**CALGARY**

2nd Floor, 337 - 17 Avenue SW  
Calgary, AB T2S 0A5  
Canada

**VANCOUVER**

13911 Bridgeport Road  
Richmond, BC V6V 1J6  
Canada

**MONTREAL**

9280 boulevard du Golf  
Anjou, QC H1J 3A1  
Canada

English: 1-800-66-ENNIS

Fax: (780) 479-6135  
[www.jennisfabrics.com](http://www.jennisfabrics.com)

Français: 1-888-66-ENNIS

2 P. NO. 355

J ENNIS FABRICS LTD

OCT. 9 2008 1:09PM

755 # 1495/14

8

frmGovernment

Page 1 of 2



American & Efid Inc.  
Post Office Box - 507  
Mount Holly, NC -28120

## Test Report

Date : 1/26/2009

QLL No. 844

Mfg. Date : 1/12/2009

Quantity: 16.9

Lot Id : 566518

Product : Tex 90 BONDED 'Z' NYLON FILAMENT Black AA 63002 16 OZ

Specification : VT295E TPII CLA F BT92N4

Customer Order Number : 15245-00

Plys (Visual) : 4

Customer : Tulmar Safety

Twist Direction : Z

Shipped To : Tulmar Safety

A&E Color : 63002 Black  
AA

Characteristic	Test1	Test2	Test3	Test4	Test5	Average	Minimum	Maximum
Strength #1 (Pound)	15.2	15.3	14.8	15.3	15.3			
Strength #2 (Pound)	15	14.9	15	15.1	15.1			
Average Strength (Pound)						15.1	11.8	
Elongation #1 (Percent)	21.9	22.4	21.3	22.3	22.1			
Elongation #2 (Percent)	21.8	21.5	22.3	21.9	21.7			
Average Elongation (Percent)						21.9		26
Twist S #1 (Turns per inch)	12.3							
Twist S #2 (Turns per inch)	12.3							
Average Twist S (Turns per inch) Initial Twist						12.3		
Twist Z #1 (Turns per inch)	8.2							
Twist Z #2 (Turns per inch)	8.2							
Average Twist Z (Turns per inch) Final Twist						8.2	5.5	
Yield #1 (Yards/Pound)	4077.2							
Yield #2 (Yards/Pound)	4126.1							
Average Yield (Yards/Pound)						4101.6	3600	5200

Shade Evaluation : GOOD

Laundering : GOOD

Perspiration : GOOD

frmGovernment

Page 2 of 2

Wet Dry Cleaning :	<u>GOOD</u>
Light Test :	<u>GOOD</u>

I certify that the above test were performed under my supervision and in accordance with the specification test requirements and that the reported test results are true, valid and applicable to the samples tested. I further certify that these samples were the only samples tested from the lot of components identified above.

Signed : *Frank D. Munday*  
Testing Director

**Note:**

This Certificate of Compliance is the property of American & Efird Inc. and may not be reproduced except in it's entirety.

PC #1637-001/01 (En

E.F. Walter Inc.	<b>CERTIFICAT DE CONFORMITÉ CERTIFICATE OF COMPLIANCE</b>		Approved <u>JR</u> Date <u>1/3/02</u>
Revision # 0	Revision date: January 30, 2002	Doc # F.7.5.5.A	Page 1 of 1

VENDU À  
SOLD TO

6048

TULMAR SAFETY SYSTEMS INC.  
1123 CAMERON STREET  
HAWKESBURY ONT  
K6A 2B8

Date : 09/09/2008

FOURNISSEUR  
VENDOR

E.F. WALTER INC.  
180 BARTOR ROAD  
TORONTO, ONTARIO  
M9M 2W6

Commande / Order # 14649-00

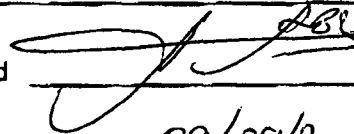
Notre / Our Reference # 55968

Nous certifions par la présente que la totalité du matériel inscrit ci-dessous a été inspecté et vérifié et est conforme aux devis et aux normes mentionnés sur votre commande.

We hereby certify that all of the material listed below has been inspected and tested and conforms to the drawings and / or specifications stated on your purchase order.

Item	Quantité Quantity	Pièce # Part #	Description
742050005	8.000 PCS	# 1637-001	SPONGE NEOPRENE BLACK SC42 TRIMMED NO SKIN (1/2" x 54" x 72") ASTM D1056, 2A2
			LOT # 75570 MANUFACTURING DATE: Sept. 5, 2008

Signé  
Signed



09/09/2008

Tsc # 1637-001 / 02

# PACKING SLIP

# TULMAR

Tulmar Safety Systems Inc.  
1123 Cameron Street  
Hawkesbury, ON K6A 2B8 CA  
Tel: 613-632-1282  
Fax: 613-632-2030  
MID : XOTULSAF1123HAW  
email: info@tulmar.com

Bill No:

## Dart Aerospace

1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7. Canada

# COPY

Packing Slip No.

**31826**

Ship Date

6-Mar-09

Ship To:

## Dart Aerospace

1270 Aberdeen Street  
Tel: 613-632-9577  
Hawkesbury, ON K6A 1K7. Canada  
613-632-9577

Order number

22836

Sales order date

17-Feb-09

Account number

CDART100

Account manager

Barney Bangs

PO number

PO00008196

Ship Via

Pick-Up

PPD/COL

Item No.

Description

Quantity ordered

UOM

Qty Shipped/Returned

Quantity on back order

8421-103

12

EA

12

Dart Blade Fold Kit - Pad #4/

Drawing No: (Ref B67-43001-181 Rev B1)

DWG Rev: A

Lot No: BATCH0000000005 Qty: 12

Shipper

Date:

MAR 06 2009

## Certificate of Conformance

☐ Not Applicable

I hereby certify that the items listed hereon have been inspected tested and conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file and can be made available upon request. If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

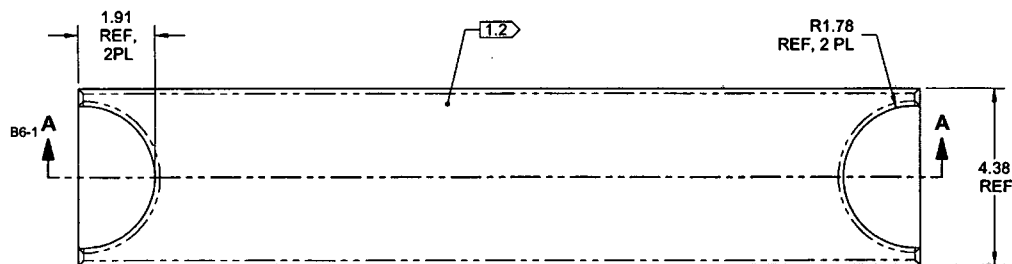
Authorized Inspector

*Lorraine Laliberté*

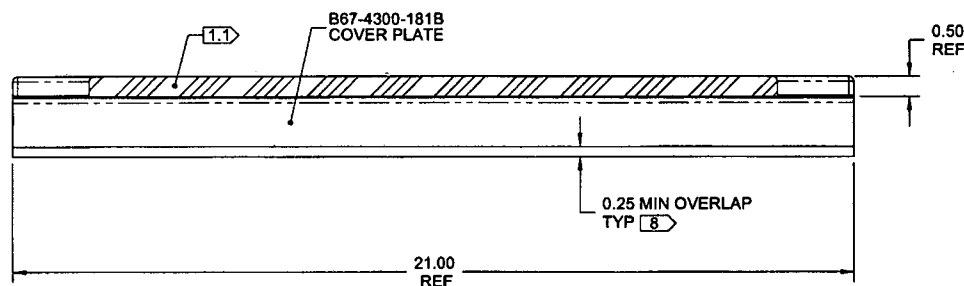
Date: 03/06/2009



ITEM	QTY -181	P/N	DESCRIPTION
1	X	B67-43001-181	COVER PLATE ASSEMBLY
2	1	B67-43001-181B	COVER PLATE
3	A/R	1673-001	SEE NOTE 1.1
4	A/R	1495	SEE NOTE 1.2
5	A/R	LA4009	SEE NOTE 1.3



**B67-43001-181 COVER PLATE ASSEMBLY**



**SECTION A-A D8-1**

**NOTES:**

**1) MATERIAL:**

1.1) FOAM: ETHYLENE PROPYLENE NEOPRENE SBR CLOSED-CELL, FLAME RETARDANT, 0.50 THICK, PER ASTM D1056 2A2, SERVICE TEMP -40°F TO +200°F, COLOUR: BLACK REF. TULMAR P/N 1637-001

1.2) FABRIC: 100% 420 DENIER NYLON, MIN THREAD COUNT 35X35, POLYURETHANE COATED ONE SIDE, COLOUR: BLACK REF. TULMAR P/N 1495

1.3) ADHESIVE: URETHANE WITH CATALYST, TWO PART, CLIFTON LA4009

2) FINISH: BOND NEOPRENE TO COVER PLATE USING ADHESIVE. COVER WITH DENIER AS SHOWN.

3) TOLERANCES: PER TABLE 1 (ZN A3-1) UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

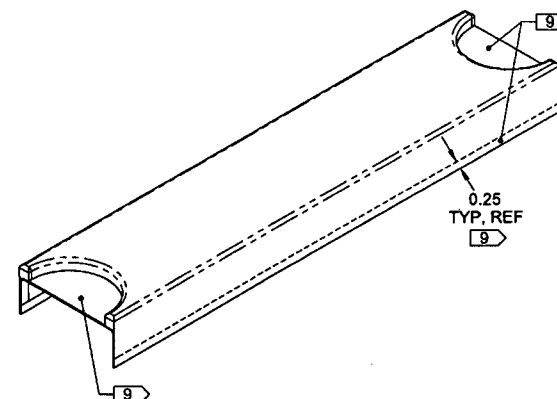
5) BREAK SHARP EDGES: N/A

6) IDENTIFICATION: N/A

7) WEIGHT: 0.78 lbs REF

8) DENIER NYLON TO BE BONDED ALL AROUND INNER SIDES OF PLATE

9) DENIER NYLON TO BE BONDED TO PLATE ON OUTER SIDE



**RELEASED**  
2010-09-16  
MP

46056

C	REDRAWN PREMIER AVIATION DRAWING IAW DART QSI 018, QSI 043 AND TULMAR SAFETY SYSTEMS INC.'S MANUFACTURING PROCESS AND TOLERANCES ON FABRIC; 4.38 WAS 4.25. FOR PREVIOUS REVISIONS, REFER TO SHEETS 10 AND 29 OF PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PAR#09-011.		MB	10.04.27
	REV.	DESCRIPTION	BY	DATE
DESIGN	RW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN				
CHECKED		DRAWING NO.	REV. C	
MFG. APPR.		B67-43001-181	SHEET 1 OF 2	
APPROVED		TITLE	SCALE	
DE APPR.	N/A	COVER PLATE	NTS	
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

**TABLE 1** [3]

TOLERANCES ON FABRIC (PARTS AND ASSEMBLIES)
±1/8: DIMS <2
±1/4: DIMS 2 TO <10
±1/2: DIMS 10 TO <20
±3/8: DIMS 20 TO <40
±1.5%: DIMS EQUAL TO OR > 40

